

# Windshield Mounted Mobile DVR User Manual



## Secure Eye

## Windshield Mounted Mobile DVR

### Preface

This manual includes information for Secure Eye - Windshield Mounted Mobile DVR.

### Disclaimers

- Secure Eye does not guarantee to record all events.
- Manufacturers and the retailers are not liable for the lost data.
- The DVR's recording function cannot be triggered if an impact is too light for the G-Sensor to react.
- The DVR stops all recording when it is connected to the computer.



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## **Important Safeguards**

- \* Read instructions – All the safety and operating instructions should be read before using the DVR.**
  - \* Check your local traffic laws before mounting the DVR. Some countries or states may prohibit drivers from using suction mounts on their windshields while driving motor vehicles.**
- 
1. Do not operate the DVR while driving. Operating the DVR can distract the driver and increase the likelihood of an accident. Pull off the road and park before using the DVR.
  2. When installing the DVR, mount the device in a secure position so it does not obstruct the driver's view of the road or interrupt the driving from operating the vehicle.
  3. Do not attempt to disassemble or alter any part of the device that is not described in this manual.
  4. Do not leave the device exposed to a heat source or in an unattended vehicle at a high-temperature location.  
Disconnect the power cord immediately if the device emits smoke or noxious fume.
  5. Do not allow the device to come into contact with, or become immersed in, water or other liquids.

6. Do not use substances containing alcohol, benzene, or other flammable substances to clean the device.
7. Do not puncture, subject the device to strong impacts, or insert any foreign objects into the device.
8. Make sure the DVR is installed securely. The windshield mount may not stay attached to the windshield in all circumstances. Do not place the mount where it will come as a distraction if the mount should become detached.
9. Only use the recommended power accessories.
10. Do not handle the power cord and the DVR if your hands are wet.
11. Unplug the power cord while the DVR is not in use.
12. Recording results may not be satisfactory when the light source changes dramatically. For example, when the vehicle is entering or leaving a dark tunnel.
13. A tinted windshield may affect the recorded images.
14. A light impact or shock may not trigger the DVR to record.
15. If the battery is severely damaged during an accident and fails to provide power to the DVR, the incident may not be recorded.

## GPS Accuracy Level

GPS Receiver is accurate to within 15 meters on average. Certain factors can affect the accuracy of GPS receivers, such as being in dense foliage, underground, or urban settings with tall buildings, and the positioning error may reach 100 meters.

## Package Contents

When you unpack the box, make sure that it contains all the accessories listed below. If any item is missing or damaged, please contact your retailer immediately.



User Manual



Main Unit



AV Cable



Cable Clips



Cigarette Lighter  
Adapter



USB Cable

## Parts and Functions





1. **Camera:** Please make sure the camera view is not blocked before use.
2. **Mounting Bracket Socket:** Use the bracket to mount the DVR on the windshield.
3. **Charger Port:** Plug the power cable to the charger port.
4. **USB Host:** Connect to a USB flash drive to backup video clips.
5. **Mini B USB:** Connect the unit to your computer through a USB cable.
6. **A/V Out Terminal:** Connect the AV cable to the DVR's A/V Out Terminal and plug the other ends of the adapter to the Video In and Audio In jacks on the TV to watch playback video.
7. **Manual Record Button:** Press to start recording manually for 30 seconds.
8. **Playback Button:** Press to start playback.
9. **PLAY button :** Play recorded event video.
10. **Power LED:** The LED light is lit when power is on.
11. **ECO LED:** ECO LED indicates the efficiency of the vehicle.



Use the 2" LCD monitor to review the image and adjust the camera's angle.

Watch the playback from the 2" LCD monitor.

(1) Press the button on the right to turn ON and OFF the



**Do not operate the DVR while driving. Operating the DVR can distract you and increase the likelihood of an accident. Pull off the road and park before using the DVR.**

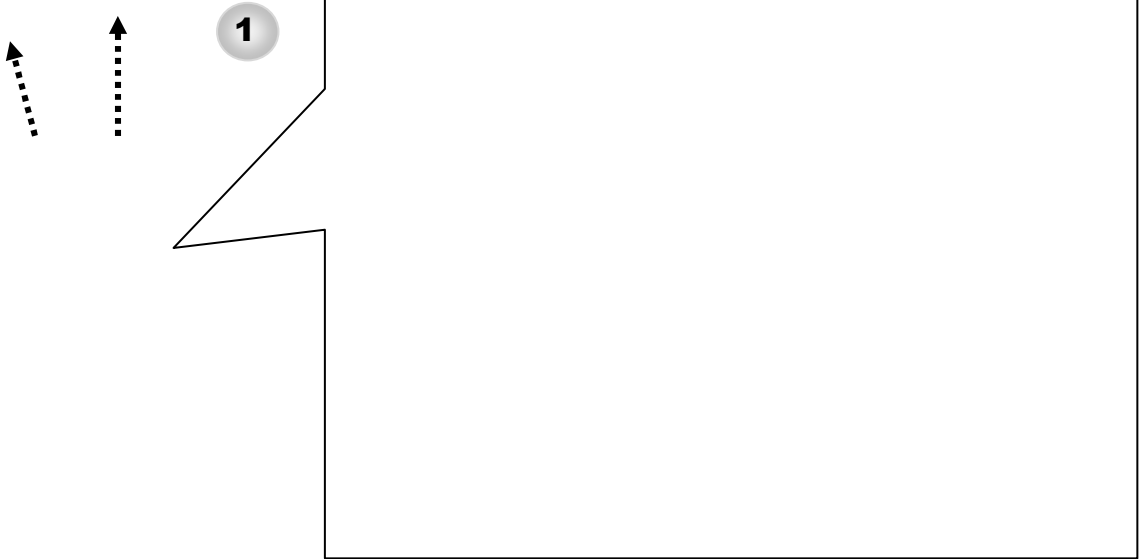
monitor.

(2) Press the button in the center to start a manual recording.

(3) Press the button on the left to playback from the latest video clip.

3

2



## Main Features

### 1. Event Recording

The DVR records 10 seconds pre event and 20 seconds post event when an event or accident happens, such as sudden acceleration, sharp turn, and collision.

### 2. Excellent Recording Quality

H.264 compression provides excellent and clear video quality.



3. Manual Recording

ding

Press the Manual Record Button at any time to trigger



recording. Each recording includes 10 second of video before you press the button and 20 seconds afterwards.

## 4. Video Clip Auto Archive

The DVR has three recording modes;

- Continuous: When the power is on, the DVR starts recording automatically.
- Manual: When you press the Manual Record button, the DVR records 30 seconds.
- Sensor: When G-Sensor detects impact, collision, and etc, the DVR records for 30 seconds automatically.

The DVR automatically archives all the recording clips and overwrites from the oldest data when the storage is full.

## 5. Easy Backup

Manual and Sensor recording can be saved to a USB Flash Drive and downloaded to your computer for playback and analysis.

## 6. Event Analysis Program

The Secure Eye Program can analyze the recorded video and provides many functions, such as capturing a snapshot from the video, print the image, and converting video clips to AVI files.

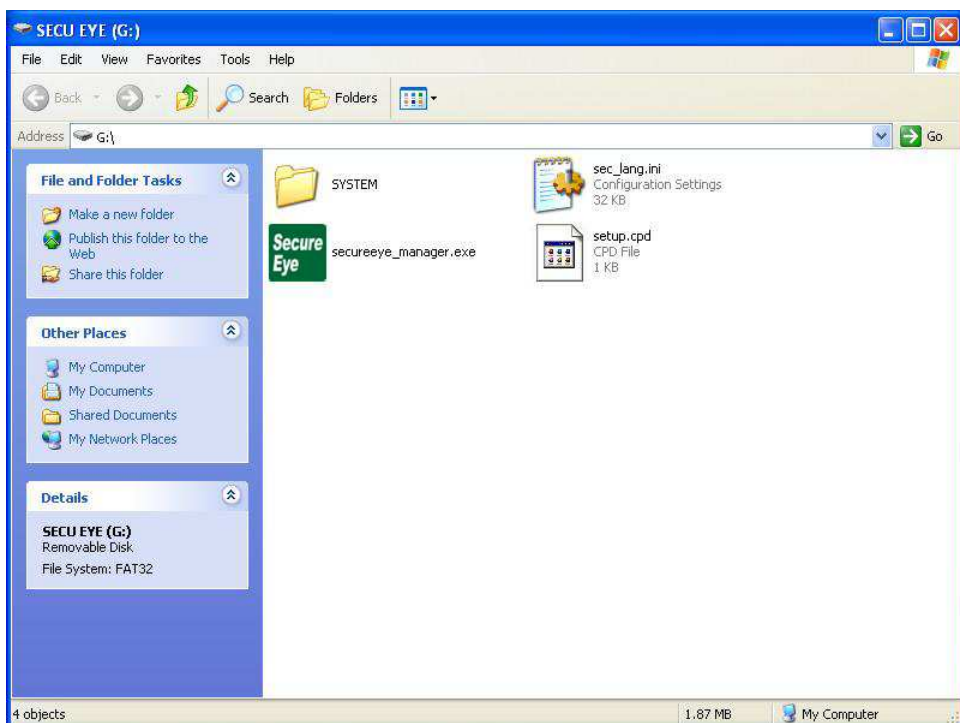
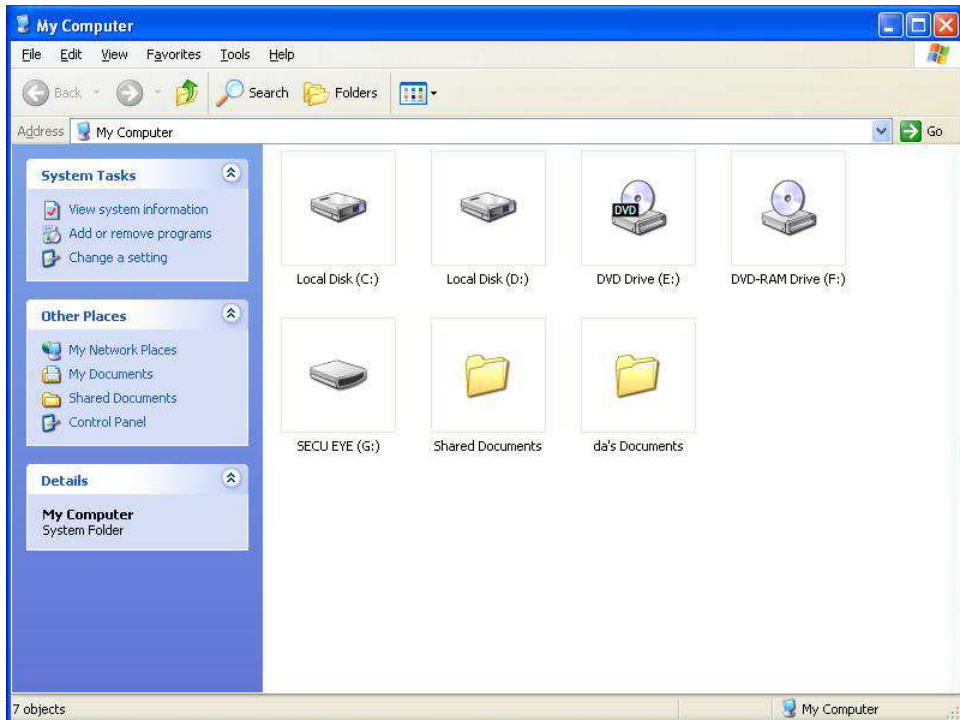
## The Installation Guide

The guide explains how to use the DVR properly for the best recording results.

1. Connect the DVR to your computer via the USB cable. **Wait approximately 2 minutes or until the computer detects the device.**
2. **Select Secure Eye** folder and execute **Secueye\_manger.exe** program

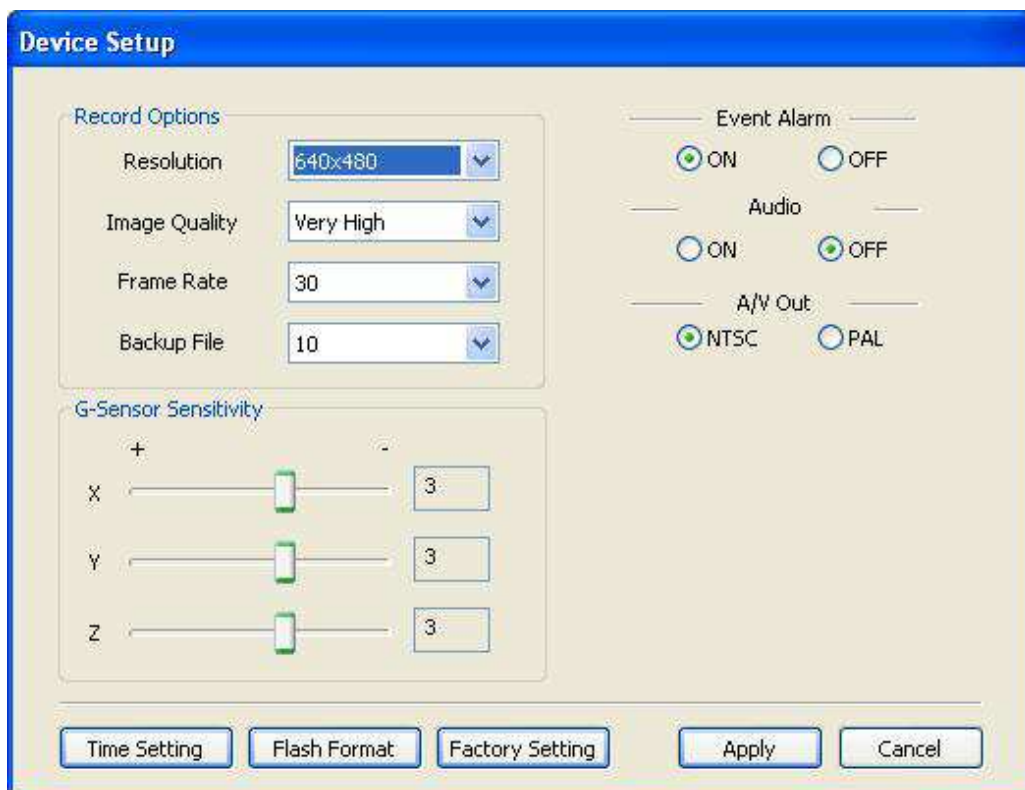


# Secure Eye Car Black Box Windshield Mounted Mobile DVR




3. Enter “Time Setting” in the program to setup date and time.

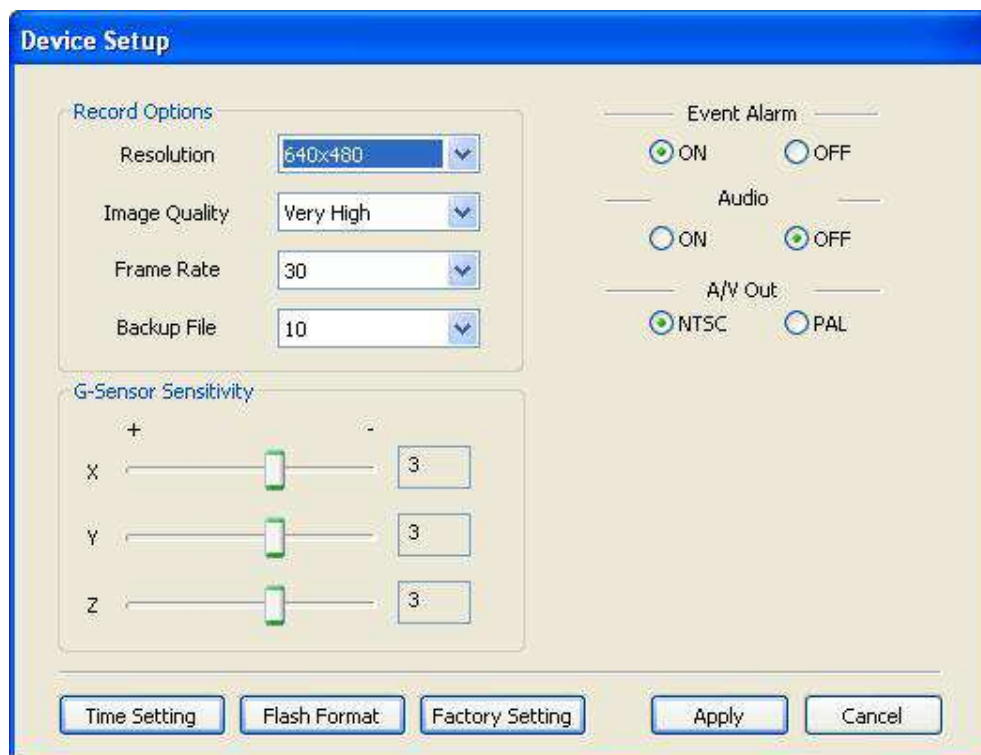
**\*Computer system time will automatically sync with Time Setting in the program. To avoid confusion, please make sure the computer time is consistent to local time.**



**\* After Time Setting setup, user may proceed to other setup for your own preferences.**

## Setup the Program

Click the SETUP button  to setup the video's Resolution, Image Quality, Record Frame Rate, Backup Files, G-Sensor Sensitivity, Event Alarm Sound, and etc.



## Setting Description

1. RESOLUTION: The resolution can be set as high as 640 x 480.
2. IMAGE QUALITY: DVR provides image quality adjustment option such as Very High/ High/ Normal/ Low/ Very Low. Please refer to the following recording time data based on 30fps( real time) recording/ Note: Recording time may vary under different circumstances.





Very High : Approximately 6 hrs continuous recording time.  
High : Approximately 7 hrs continuous recording time.  
Normal : Approximately 9 hrs continuous recording time.  
Low : Approximately 12 hrs continuous recording time.  
Very Low : Approximately 14 hrs continuous recording time.

3. FRAME RATE: DVR allows user to select recording frame rate from 5/10/15/30fps. Note: The smaller the fps selected the longer the recording time. Recommendation setup: 15fps or 30fps.
4. BACKUP FILES: Users can set up how many video clips to be offloaded to a USB Flash Drive. There are selections of 1, 5, 10, 20, 30, 40, and 48.
5. G-SENSOR SENSITIVITY: The smaller the number is, the higher the sensitivity becomes.
6. EVENT ALARM: Users can turn off the alarm beeping sound when G-Sensor detects an event. The default is ON.
7. AUDIO: The DVR has a built-in Microphone. Users can turn off the audio recording by selecting OFF. The default is ON.
8. AV OUT: Users can set up the video output format according to the video system in their countries.

**Proceed to DVR installation after system setup is completed**



1. Turn off the engine before installing the DVR.
2. Clean and dry your windshield and the suction cup with a lint-free cloth. Place the suction cup on the windshield. It is ideal to place the suction cup behind the rearview mirror where the DVR will not block the view while you drive.

**Clean the camera lens with a lint-free cloth.**



3. Follow the following seven steps to install the cable and the DVR.

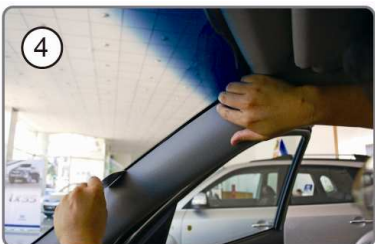


# **Secure Eye** Car Black Box Windshield Mounted Mobile DVR

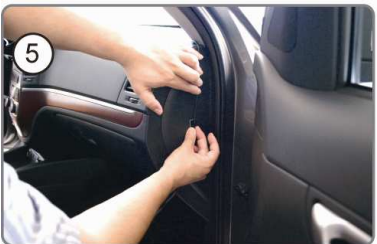
**Note: Due to the G sensor, user must install the DVR properly prior power on. Otherwise, the images will turn out to be upside down.**



Adjust the angle of the unit and plug the power cable to the unit.



Use a plastic card, such as a credit card, to press the power cable firmly into the edges.



Use the provided cable clips to fix the cable at the passenger side and underneath the floor mat.



Plug the power adapter into a 12-24Volt receptacle in your vehicle.

## Operating the DVR – Recording

1. After plugging the power adapter into a 12 - 24Volt receptacle in your vehicle, start the engine.
2. When the power is on, the DVR beeps and all LED lights are lit up. After a few seconds, ECO LED light turns off, and Power LED light turns on. The DVR is ready to use and starts continuous recording.



3. When the DVR is powered on, the GPS starts acquiring satellite signals. Please note that it may take a few minutes to complete acquiring satellites.
4. Upon drastic impact, sudden acceleration, sharp turn, and collision, the DVR beeps and automatically starts Sensor Recording. Sensor Recording records 10 seconds of pre event and 20 seconds of post event. **Please note that the alarm beeping sound can be turned off.** Please refer to the Setup the Program section.
5. To start panic recording or manual recording, press the Manual Record Button in the center to start recording. Each recording includes 10 second of video before you press the button and 20 seconds afterwards.

6. USB Backup will backup Manual recording data only. Users are required to connect to the computer if they wish to backup regular continuous recording data.

The chart below explains the details of each recording mode:

	Continuous	Manual	Sensor
Trigger Condition	When the DVR's power is on.	When you press the Manual Record Button.	When G-Sensor detects an event.
Recording Duration	Each recording contains 3 mins of video. About 6~14hrs recorded according to image quality.	Each recording contains 30 seconds of video, 10 seconds pre event and 20 seconds post event. The DVR records up to 48 clips.	
Overwriting	The DVR overwrites from the oldest continuous recording video clip.	The DVR overwrites from the oldest event recording.	
File Size	Approx. 30MB of each recording	Approx. 15MB of each recording	
Backup	Connect the DVR to your computer to download the file.	Connect the DVR to your computer to download the file. Backup to a USB Flash Drive right from the DVR.	

## Connecting the DVR to a Monitor

1. You can watch the playback video by connecting the DVR to the vehicle's monitor, if you need to playback the video immediately.
2. **Do not operate the DVR while driving.** Operating the DVR can distract you and increase the likelihood of an accident. Pull off the road and park before using the DVR.
3. Connect the AV cable from the DVR's A/V Out Terminal and plug the other ends of the adapter to the Video In and Audio In jacks on the vehicle's monitor. Please turn on the monitor's power before plugging in the AV cable.
4. Press the Playback Button to start playing back.



Playback Button







5. The DVR stops recording during playback.
6. During playback, ECO LED light flashes and the Power LED light is turned off.
7. The playback starts from the oldest archived video clip to the latest. To skip to the next video clip, press the Playback Button again.
8. **To exit the playback mode, press the Manual Record Button.** The DVR beeps and switches to the event recording mode. To start panic recording or manual recording under the playback mode, press the Manual Record Button **TWICE**.
9. When the DVR finishes playing back all the video clips, it automatically exits the playback mode and switches to the event recording mode.

### Backup the Video Clips to a USB Flash Drive

1. You can backup the Sensor and Manual Recording Video Clips to a USB Flash Drive.
2. Connect a USB Flash Drive to the DVR's USB Host.  
Please note the file system of USB Flash Drive must be FAT32 or FAT16. The DVR does not support NTFS file system.



3. When a USB Flash Drive is connected to the DVR, the Power LED light turns off and the ECO LED light turns blue.
4. The DVR automatically starts offloading the video clips to the USB Flash Drive and the blue ECO LED light flashes. You can set up how many video clips to be offloaded to the USB Flash Drive from the Secure Eye Program. **Please refer to the Setup the Program section.** If you wish to offload all the video clips, including the continuous recording video, please connect the DVR to your computer for backup.





5. When the backup is finished, the ECO LED light turns GREEN.
6. If the DVR cannot perform backup properly, it will beep. The Power LED flashes red light, and the ECO LED light turns red. It may also happen when the USB Flash Drive is not compatible with the DVR. Please try another USB Flash Drive.
7. The memory of the USB Flash Drive must be larger than 1GB.
8. **To exit the backup mode, press the Manual Record Button.** The DVR stops backup and switches to the recording mode. The DVR cannot offload the video to the USB Flash Drive if the backup is interrupted during the process.
9. When the backup is completed, remove the USB Flash Drive from the DVR and plug it to your computer for playback.



### ECO Driving Indicator

1. The ECO drive indicator provides information to help us drive more efficiently.
2. The Internal G sensor evaluates the driving over a period of time and the SIV recorder rates it and indicates the score with different colors.
3. If there is no sharp breaking, no sudden acceleration, or rapid cornering etc, the driver will get a high ECO score and the ECO LED will turn green.



4. If the ECO LED turns blue, your score is average.





5. If the ECO LED turns red, your score is poor and you are not driving efficiently.



6. As the score is evaluated over a period of time, the LED color may change continuously.
7. For better driving, please refer to the ECO LED color.

## **Turning off the DVR**

1. When the vehicle is turned off, the DVR will be turned off as well. To avoid losing data, please follow the instructions below and turn off the DVR properly.
2. If you press the Manual Record Button and the DVR is recording manually, please wait for 20 seconds before turning off the vehicle.
3. Please DO NOT turn off the DVR during the backup process. You may turn off the DVR when the USB backup is completed and the ECO LED light turns green.
4. Unplug the power adapter from the vehicle's 12-24 Volt receptacle when the DVR is not in use.

## Using the Secure Eye Program

Connect the DVR to your computer and run  
“Secueye\_manger.exe”



1. **Main Screen View:** Display the video clips recorded in the DVR.



2. **Playback Controls:** Drag the bar to rewind and forward the video.



3. **G-Sensor Chart:** Display the G-Sensor's data in a 3-axis wave diagram.



- X: Indicates the vehicle direction of forwards and backwards
- Y: Indicates the vehicle direction of left and right
- Z: Indicates the vehicle direction of up and down

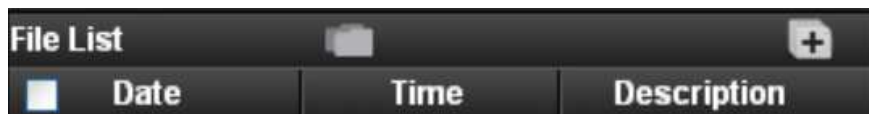
4. **Control Buttons:** Use the buttons to Capture, Print, Backup, and Setup the video.

5. **Playback Controls:** Use the controls to Step Rewind, Rewind, Pause, Play, Step Forward, and Stop the video.

6. **ECO Score:** Indicate the driver's driving behavior.  
80 and above: Good.  
60-80: Average.  
60 and below: Poor.



7. **File List:** Display all the recorded video clips.

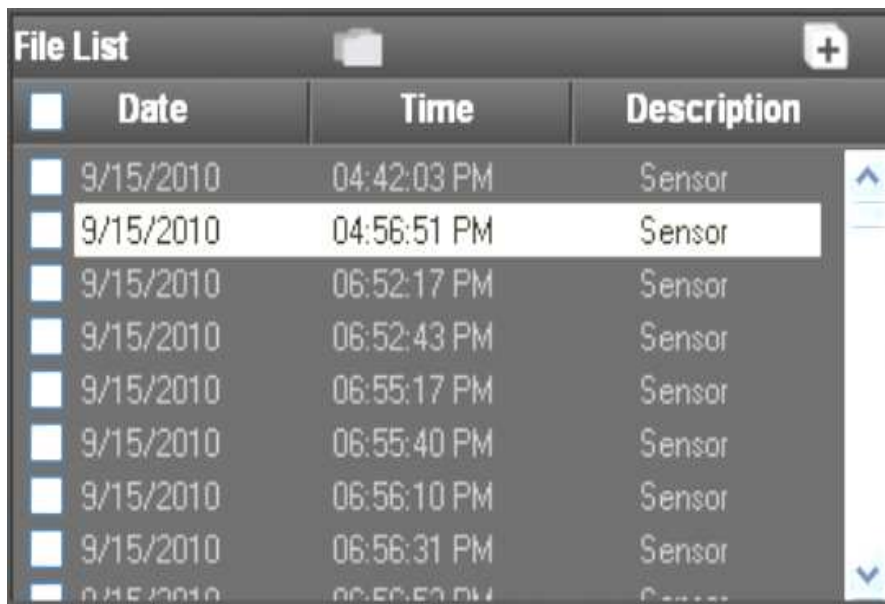


8. **GPS Window:** Display the vehicle's location and route on Google Map.




## Opening the Video

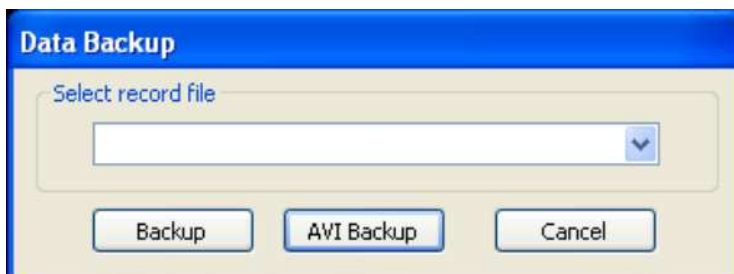
- Run the Secure Eye Program.
- Double click the file you intend to open in the File list.



<input type="checkbox"/>	Date	Time	Description
<input type="checkbox"/>	9/15/2010	04:42:03 PM	Sensor
<input type="checkbox"/>	9/15/2010	04:56:51 PM	Sensor
<input type="checkbox"/>	9/15/2010	06:52:17 PM	Sensor
<input type="checkbox"/>	9/15/2010	06:52:43 PM	Sensor
<input type="checkbox"/>	9/15/2010	06:55:17 PM	Sensor
<input type="checkbox"/>	9/15/2010	06:55:40 PM	Sensor
<input type="checkbox"/>	9/15/2010	06:56:10 PM	Sensor
<input type="checkbox"/>	9/15/2010	06:56:31 PM	Sensor
<input type="checkbox"/>	9/15/2010	06:56:52 PM	Sensor

## Saving the Video Clips

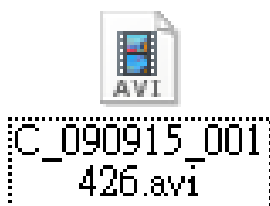
- Click the BACKUP button  in the Secure Eye Program.
- Select the file you intend to backup.
- Select the type of backup, Backup or AVI Backup, you wish to perform.
- Choose a folder to save the file.
- Click OK to confirm.



Backup: When you select Backup, the file is saved as \*.cpd format, as shown below. CPD files contain GPS and G-Sensor records. You need the Secure Eye Program to play the CPD files.



AVI Backup: When you select AVI Backup, the file is saved as \*.avi format, as shown below. AVI files do not contain GPS and G-Sensor records, only the video. You can use Window Media Player to play the AVI files.



















## GPS Window

GPS Windows shows the vehicle's location and route. Use the Arrow Keys to move, zoom in and zoom out the map. Please note that the program may fail to load the maps when the computer is not connected to the internet or the DVR does not record the vehicle's positions due to the weak satellite signals.



**Buttons and Functions**

Icon	Name	Function
	Exit	Exit the Secure Eye Program
	Setup	Program Setup
	Capture	Capture a Still Image and Save as JPEG
	Print	Print the Captured Still Image
	Backup	Save the Video Clips as AVI Files
	Speed Control	Control the Playback Speed
	Volume	Control the Volume
	Play	Play the Video
	Rewind	Rewind the Video
	Pause	Pause the Video
	Stop	Stop the Video
	Step Playback-Rewind	Rewind Picture by Picture Playback
	Step Playback-Forward	Forward Picture by Picture Playback
	Open	Open the Video Clip

## Specifications

MODEL NO.					
Camera	Sensor	CMOS	Audio	Speaker	G.711 u-law Date
	Angle	64.8 °(V) x 92.8 °(H) x 125.5 °(D)		Privacy Mode	8bits, 64kbps
	Sensitivity	0.8Lux			
Recording	Format	H.264(ISO/IEC 14496-10) baseline profile H.264	Microphone	Type	C-Microphone
	Resolution	640 x 480		Sensitivity	-38dB
	Recording Speed	30fps			
GPS		Non-Directional GPS Signal Receiver	G-Sensor		3-Axis (Acceleration / Breaks/Collisions)
Memory		Built-in Nand Flash memory 8GB	USB Host backup		Optional 1/5/10/20/30/40/48 (File numbers)
Monitor		2"Color LTPS LCD Panel			
Event Recording		Max. Event Qty	Event Video Clip (Overwrite) : Up to 48 events (G sensor / Manual) Continuous Video Clip : depends on memory capacity		
		Recording Time	One Event Video Clip : Max 30 seconds per file (10 seconds before event and 20 seconds after event) Continuous Video Clip : Max 3 min per file (About 6 hours I in total)		
		Sensor sensitivity	User option		
		LED indication	ECO LED follow ECO score/power Led Flicking / buzzer		
Interface		USB device	USB 2.0 Device (1.1 compatible)		
		USB host	USB Host 2.0 1 port / Format support: FAT 16/32		
		AV Out	Resolution 720x480 (NTSC/PAL)		
		OS	Window98, ME, 2000, XP, Vista ,Win7		
Power Consumption	Rated Voltage and Current	DC 12V~24V / 300mA	Operating Temp	0 °C to 50 °C	
	Adapter	Cigarette power adapter			
Net Weight		150g	Dimension(mm)		101(W)x59(D)x41(H)



## Information

Please dispose the product properly. Contact your local waste disposal department for more information.



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